

The Effect of Electronic Dialogue Journaling on Jordanian Basic Stage EFL Students' Writing Performance

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Background of the Study

The communication and information technology revolution has set in motion a worldwide process of transition from an industrial to an information oriented society. Jordan has realized the important role of information and communication technology in this information-based society. With the ascension of His Majesty King Abdullah II to the throne, the stage was set for the development of a new vision for the economic development of Jordan. His Majesty (2000) has provided the following vision for Jordan's development.

We will ensure that everybody is computer-literate. Every single school and community will be wired to be able to do that, simply because this is the type of quality and talent that we want in our workforce It is time to widen the scope of our participation in the knowledge economy from being mere isolated islands on the periphery of progress, to becoming an oasis of technology that can offer the prospect of economies of scale for those who venture to invest in our young available talent.

To realize His Majesty's vision, the Ministry of Education developed an education reform project. This project is called Education Reform for Knowledge Economy (ERfKE). The aim of this project is to equip teachers and students with the skills needed for the information-based society.

In response to ERfKE, the Ministry of Information and Communication Technology provided nearly all schools with computer labs and connected these labs to the World Wide Web. Furthermore, the Ministry of Education (2003) developed the *General Framework for Curriculum and Assessment* and asked

curriculum designers to work in light of this framework which aims to achieve the following:

1. Teachers' use of computers to:

- (a) achieve the outcomes of the curriculum,
- (b) communicate with parents about children's progress,
- (c) grow and develop professionally,
- (d) expand their knowledge and supplement textbooks,
- (e) create multimedia presentations,
- (f) assess their students' progress, and
- (g) make students' assessments readily available to parents.

2. Students' use of computers to:

- (a) communicate with other students in Jordan and other parts of the world,
- (b) deepen their knowledge, do research, and broaden their self learning,
- (c) write essays and answer tests,
- (d) collect, evaluate and analyze information,
- (e) create multimedia presentations, and
- (f) assess their own learning outcomes.

In light of the previously mentioned guidelines, the new ELT textbooks in Jordan focus on developing students' ability to acquire, organize, assess and disseminate information through information networks. These textbooks also require teachers to equip students with electronic communication skills so that they can function properly in the global information-based society.

Although writing in English as a foreign language has become an important skill for communication in the information-based society, the

researchers felt that Jordanian upper basic stage students cannot express, support or organize their own points of view while writing in English.

A major cause of Jordanian basic stage students' poor writing skill is that their teachers focus on the subskills of writing rather than using it for communication. Another cause may be students' demotivation for writing due to their fear from the teacher's red blood ink.

Research Problem and Purpose of the Study

The problem of this study was that Jordanian upper basic stage EFL students exhibited low writing performance. Therefore, the present study aimed at investigating the effect of electronic dialogue journaling on their writing performance in an attempt to find a solution to this problem.

Research Hypothesis

On the basis of the theoretical and practical literature reviewed in the study, the researchers hypothesized that there would be a significant difference in the EFL eighth graders' writing performance between the experimental group who used electronic dialogue journaling and the control group who used the traditional method in favor of the experimental group.

Significance of the Study

This study is significant for two reasons. First, it helps students master the electronic communication skills that enable them to function properly in the global information-based society. Second, it makes use of the computer labs and

the internet in the Jordanian schools and copes with the MOE vision of educational reform.

Operational Definition of Terms

The terms below, wherever seen, have the following definitions:

Electronic dialogue journaling: For the present study, electronic dialogue journaling is defined as a written conversation in which a student and a teacher communicate regularly via e-mail. The student writes as much as s/he can about a certain topic and the teacher responds to her/his writing by focusing on content rather than form. The student then reads and responds to what has been written by the teacher.

Writing performance: For the present study, this term is defined as expressing oneself on a certain topic through the written word with good quality and enough quantity.

Traditional method is the students' use of paper and pencil in writing about a certain topic. The teacher then reads and corrects each student's mistakes. Each student then receives her/his own composition to rewrite it, incorporating corrections.

Limitations of the Study

The generalization of the results of the study is limited to the EFL eighth graders. It is also limited to the instruments which the researchers used to collect data for the study.

Review of Related Literature

This section is divided into two parts. The first part is devoted to the theoretical literature on electronic writing and the second part deals with the research studies conducted in this area.

Theoretical literature

Much information has been written about electronic writing as an instructional method and its importance for improving students' attitudes and motivation and developing their writing performance. According to Bangert-Drowns (1993), using the computer for writing allows students to make changes to text that would have been more cumbersome on paper. He maintains that these changes, which range from addition and deletion to more substantial revision, allow the student to attend to higher order thinking. Therefore, users of the computer can write longer compositions and engage in more revision of their writing than users of paper and pencil. He adds that ease of revision combined with improved appearance of writing products and excitement of using a high technology can collectively contribute to the improvement of students' attitudes towards writing.

Moreover, Sorcinelli (1995) states that the internet offers teachers an excellent opportunity to respond to each student's journals within a day or two of submission. Therefore, students learn better when they receive quick feedback before the course moves on to another topic.

In the same vein, El-Hindi (1998) states that e-mail offers an effective means for implementing constructivist strategies that would be difficult to implement through other media because it gives students the opportunities to

interact with others as they construct knowledge about the world and about themselves.

Along with the same lines, Beauvios (1998)) mentions that electronic writing can provide important literacy learning opportunities for students by making reading and writing authentic. It can also force students to be in more contact with the target language than in the traditional classroom.

In a like manner, Bollati (2002) mentions that electronic journals provide a more personal writing opportunity for students who learn academic writing. In addition, electronic journals help students improve their own writing fluency and allow the teacher and the students to develop a more intimate form of communication.

In addition, Doherty and Mayer (2003) state that e-mail communication between the teacher and the students provides a new space—new in scope, location, time and mode—in which relationships can be built. They further state that students' academic achievement is enhanced in schools that support personal and sustained connections between students and teachers in the school setting.

By the same token, El-Koumy (2004a) states that the advantages of using electronic dialogue journals for both instructional and assessment purposes include individualizing language teaching, making students feel that their writing has a value, promoting students' reflection and autonomous learning, increasing students' confidence in their own ability to learn, helping the instructor adapt instruction to better meet students' needs, providing a forum for sharing ideas and assessing students' literacy skills, using writing and reading

for genuine communication and increasing opportunities for interaction between students and teachers.

Besides, Williams (2005) mentions that when students write online, they think of themselves as writers and find more pleasure in what they write on screen than in what they write on paper. They also make use of the computer tools such as spelling and grammar checkers.

In contrast to the previously mentioned literature, very little information has been written about the demerits of using the internet for teaching and learning in general (Hawisher and Moran, 1993). These demerits have nothing to do with the effectiveness of the internet as a medium for instruction because this depends largely on how to use it. They are only related to the financial cost the internet imposes on schools. However, if computers already exist and are connected to the World Wide Web, as in the study situation, the use of the internet will not represent a financial burden on schools.

Research studies

A review of research related to electronic writing revealed that many studies were conducted in this area all over the world. Ellis (1995) investigated the effect of using e-mail on the development of students' writing skill. The subjects for the study were fifty students in Montana State University. During the Fall and Spring semesters of 1994 and 1995, one group of students was asked to write compositions via e-mail, whereas the other group was asked to write on paper. Findings revealed that students who used e-mail made more improvements in the writing skills than those who used paper and pencil.

Belisle (1996) explored the effects of electronic dialogue journaling on first and second year Japanese English majors' writing at Mukogawa Fort Wright Institute. Findings showed that the participants' communicative writing skills were improved and their confidence was built as mistakes were tolerated.

Liaw (1996) analyzed the e-mail entries written by Taiwanese EFL students in interaction with native speakers of English. The subjects for the study were 22 university students. These subjects were paired with pre-service EFL teacher trainees in the United States. The discourse of 87 e-mail entries written by the participants was analyzed over a period of a year. Findings revealed improvement in the participants' writing skill in general, and grammatical and lexical accuracy in particular.

Stewart-Dore (1996) investigated the effect of electronic dialogue journaling on students' writing at Miyazaki International College. He asked his students to write dialogue journals to their secret assigned partners. Findings showed that students enjoyed the activity and their journal entries revealed improvement in writing fluency. He concluded that as the students continued exchanging e-mail messages, they tended to write longer and shared more ideas with their partners.

Trenchs (1996) used electronic mail as a medium of instruction to improve students' writing in Spanish as a second language. Three students engaged in e-mail transmission with her. Results revealed that these students were self-motivated to use Spanish in a new and creative way in meaningful and authentic texts.

Grosz-Gluckman (1997) examined the utility of electronic mail as an instructional tool for limited-English-proficient adult females who had made little progress in learning writing in English as a second language. Six subjects, aged 30-50 years, enrolled in a university ESL program, produced 25 e-mail exchanges over a five week period. These e-mail exchanges were analyzed in terms of number of words, acquisition of new vocabulary directly related to comprehensible input and syntactic complexity resulting from the use of connectors in the subordination of clauses. Results indicated that writing via e-mail had a positive effect on the writing skills of adult learners.

Gonzalez-Bueno (1998) investigated the effect of electronic dialogue journaling on Spanish L₂ discourse. Findings revealed that this method improved the quality of students' writing. Her observation also revealed that students enjoyed the activity as they received positive feedback for each entry and were confident in presenting ideas as their entries were not graded. She concluded that electronic dialogue journaling could encourage students to communicate without fear of making mistakes.

MacArthur (1998) investigated the effect of electronic dialogue journaling on the writing of students with learning disabilities. Five students with severe writing problems wrote dialogue journals to their teacher using the word processor. Results of the study revealed that dialogue journal writing had a strong positive effect on the legibility and spelling of written entries for four of the five students. At the beginning of the experiment, the writing of these four students ranged from 55% to 85% legible words and from 42% to 75% correctly spelled words. At the end of the experiment, the four students increased their percentage of both legible and correctly spelled words into the 90-100% range.

Britsch (2000) investigated the effect of electronic dialogue journaling on children's writing abilities. Throughout a two-year project, data were collected by compiling the e-mail correspondences that took place weekly between adults (the researcher and five graduate students) and six children from September through April of each school year. Results of the study revealed that electronic dialogue journaling had a positive effect on children's writing abilities.

Gonzalez-Bueno and Perez (2000) investigated the effects of electronic mail on the lexical and grammatical accuracy and quantity of language produced by learners of Spanish as a second language. Results of the study revealed that electronic mail had a positive effect on the amount of language produced by learners, but did not have a significant effect on lexical or grammatical accuracy. Results also revealed that electronic mail had a positive effect on students' attitudes towards learning the target language.

Murphy-Lee (2000) investigated the effects of electronic dialogue journaling on second-grade Russian students' writing proficiency. Students were required to e-mail their instructor once a week in the target language. Results revealed that e-mail dialogue journaling improved the participants' writing proficiency and that the rapport between the instructor and the students had improved since electronic dialogue journals were often of a personal nature. Furthermore, an overall improvement in the quality of the participants' discourse was also noticed at the end of the academic year.

Karchmer (2001) investigated thirteen K-12 teachers' reports of how the internet influenced literacy and literacy instruction in their classrooms. The teachers, including ten women and three men, represented eleven different

states in the USA and were considered exemplary at using technology by their colleagues. Findings revealed that these teachers noticed an increase in their students' motivation to write. They also noticed that e-mail had a great influence on the progress of their students' writing.

Michaels (2001) investigated the effects of e-mail writing on children's writing and motivation. The subjects for the study were five first-grade and five fourth-grade children. Data sources were observations, interviews and children's e-mails. Findings revealed that children were motivated to write and their writing was improved.

Stanford and Siders (2001) investigated the effects of pen pal and e-pal writing on the writing skills of students with and without disabilities. They paired university teacher-education students with public school students for pen pal and e-pal writing. Pen pal learners used handwritten letters to communicate with the university students. E-pal learners used e-mail to communicate with the same university students. Control group learners wrote to an imaginary correspondent and realized no feedback from their communication. The subjects for the study were 80 students in grades 6-8. All of them wrote friendly letters twice a week for an eight-week period. Results revealed that e-pal learners with and without disabilities made more improvements in the quality and quantity of writing compared to other learners.

Colleen (2003) explored the successes that resulted when fifth grade students composed journals via the internet. Twenty-eight students participated in the study for four months. Every student was required to send at least one e-mail a week to the teacher describing and reacting to the novel s/he read independently. The teacher responded to each student. Results revealed that students produced a variety of journal entries, formulated journals

independently, improved their typing skills, and felt comfortable using the online checker to correct their spelling mistakes.

Shang (2007) examined the effects of using e-mail on EFL writing performance in aspects of syntactic complexity, grammatical accuracy and lexical density. The subjects for this study were forty non-traditional EFL students enrolled in an intermediate reading class at a university in Taiwan. Findings revealed that students made improvements in syntactic complexity and grammatical accuracy, but not in lexical density. Moreover, findings from students' self-reports revealed that e-mail writing improved students' foreign language learning and developed their attitudes towards English.

As indicated from the previous literature, many studies were conducted on electronic writing all over the world. Almost all these studies revealed that electronic writing improved the writing performance of students of different nationalities, including American (Karchmer, 2001), Japanese (Belisle, 1996), Russian (Murphy-Lee, 2000), Spanish (Trenchs, 1996), and Taiwanese (Liaw, 1996; Shang, 2007). Some of these studies also revealed that electronic writing helped students with limited English proficiency (Grosz-Gluckman, 1997) and learning disabilities (MacArthur, 1998; Stanford and Siders 2001) improve their writing performance. Furthermore, some of these studies indicated that electronic writing improved students' attitudes towards learning the second/foreign language (Gonzalez-Bueno and Perez, 2000; Shang, 2007) and built their motivation to write in L₁ and L₂ (Karchmer, 2001; Michaels, 2001; Trenchs, 1996).

The previously mentioned review of the literature on electronic writing also revealed a lack of research on this method in Jordan. Therefore, this study aimed at filling this gap.

Methodology

This section discusses the methodology which the researchers followed in the present study. It includes subjects, research design, variables, instruments, materials and procedures of the study.

Subjects of the study

The subjects of this study consisted of fifty eighth-grade female students in the Islamic Educational School at Amman Fourth Directorate of Education during the first semester of the academic year 2007/2008. These subjects were assigned to an experimental group and a control group by numbering all of them serially and assigning the odd-numbered subjects to the former group and the even-numbered ones to the latter group. All of them had been taught English as a foreign language for seven years before the start of the study.

Research design

This study utilized a pretest-posttest control group experimental design. In this design the researchers used an experimental group and a control group. Both groups took a pre-test to measure their writing performance before conducting the experiment. During the experiment, the experimental group wrote journals via the internet and the control group wrote compositions using

paper and pencil. After the experiment, the same test was administered as a posttest to investigate any significant differences in writing performance between the two groups.

Variables of the study

The present study included the following variables:

1. Independent variables:
 - a. Electronic dialogue journaling
 - b. Traditional method

2. Dependent variable:

The dependent variable of the study was EFL students' writing performance.

Instruments of the study

To achieve the aim of the study, the researchers used the following instruments:

1. A writing performance test

A writing test was developed by the researchers to measure the students' writing performance before and after conducting the experiment. This test required students to write about fifteen lines on the qualities of good parents. To ensure the validity of this test, a jury of three EFL teachers and three

supervisors was consulted. All members of the jury agreed that the topic was understandable and suitable for eighth-grade students' level of writing proficiency. To ensure its reliability, the writing performance test was administrated to a sample of twenty-five eighth-grade students out of the sample of the study during the second semester of the academic year 2006/2007 and was repeated ten days later on the same sample to assess its stability over time. Pearson correlation coefficient was found to be 0.87 which indicated that the test scores were stable over time.

2. A scale for marking EFL students' writing

The researchers adopted El-Koumy's (1991) scale for marking EFL students' writing as well as its instructions (see Appendix I). This scale is divided into five major components: content, organization, word-choice, grammar and mechanics. It was proved to be valid and reliable.

Materials for the study

The researchers overviewed the prescribed book for eighth graders and its supplementary materials. Then, they developed a list of eight open-ended writing topics (see Appendix II). These topics were used with both the experimental group and the control group. To ensure the validity of these topics, a jury of three EFL teachers and three supervisors was consulted. This jury suggested that two of the topics should be reworded to be understandable for the students. Their suggestions were taken into consideration and the topics were changed accordingly.

Procedures of the study

The researchers followed the following procedures to conduct the experiment:

1. Getting the approval of the general manger of the Islamic Educational School to conduct the experiment.
2. Pre-testing the experimental group and the control group, in the first week of September of the scholastic year 2007/2008, to measure their writing performance before conducting the experiment. The results of the analysis of the pre-test scores are shown in table (1).

Table (1)

The T-Value of the Difference in the Mean Scores Between the Experimental Group and the Control Group on the Pre-test

Group	N	Mean	SD	DF	T	Sig.
Experimental	25	6.08	1.63	48	-0.64	0.53
Control	25	5.98	1.69			

Table (1) shows that the mean score of the experimental group was 6.08 with a standard deviation of 1.63, and the mean score of the control group was 5.98 with a standard deviation of 1.69. It also shows that the difference in the mean scores between the experimental group and the control group was not statistically significant ($t = 0.64$, $p = 0.53$). This indicated that the two

groups were equivalent in writing performance before conducting the experiment.

3. Conducting the experiment from September 10 to January 10, during the first semester of the academic year 2007/2008. For the experimental group, the teacher (second researcher) accompanied the students to the computer lab in each writing session. She made sure that every student was able to use the internet and had an e-mail account before starting the experiment. She also gave students the e-mail address they were going to use for writing their journals. After that, the teacher and the students interacted electronically by using the e-mail for four months. The students first wrote to the teacher who responded to their entries by focusing on content rather than form. The give-and-take on each topic took about two weeks. As for the control group, the teacher asked students to write about each topic using paper and pencil. After that, she collected the students' compositions, corrected mistakes and gave the compositions back to the students to rewrite them, taking corrections into consideration. Each topic took two sessions, one per week.
4. Post-testing the experimental group and the control group on January 11, 2008 to measure their writing performance after treatment.
5. Analyzing the collected data using the t-test.

Findings and Discussion

The results of the analysis of the post-test scores are shown in table (2) below.

Table (2)

The T-Value of the Difference in the Mean Scores Between the Experimental group and the Control Group on the Post-Test

Group	N	M	SD	T	DF	Sig.
Experimental	25	8.64	1.16	4.36	48	0.00
Control	25	6.96	1.54			

Table (2) shows that the mean score of the experimental group was 8.64 with a standard deviation of 1.16, while the control group's mean score was 6.96 with a standard deviation of 1.54. It also shows that the difference in the mean scores between the experimental group and the control group was statistically significant ($t= 4.36$, $p= 0.00$). Therefore, the hypothesis of the study was accepted. This finding supports Piaget's theory that students learn more effectively through social interaction. It also supports the premise that the content of writing is far more important than form and that the latter comes naturally from the emphasis on the former.

The better achievement of the experimental group students in EFL writing performance could be attributed to many reasons. First, the excitement of using technology combined with intimate and genuine communication might have built students' motivation to write in English as a foreign language, which

could in turn make EFL writing a motivating activity. In support of this interpretation some of the previous studies found that electronic dialogue journals fostered students' motivation to write in both L₁ and L₂ (Karchmer, 2001; Michaels, 2001; Trenchs, 1996) and built positive attitudes towards learning the second/foreign language (Gonzalez-Bueno and Perez, 2000; Shang, 2007). Second, the teacher's tolerance of mistakes might have built students self-confidence and self-esteem, which could in turn encourage them to express their own points of view. In support of this interpretation, Gonzalez-Bueno's (1998) observation during her study revealed that electronic dialogue journals encouraged students to write without fear of making mistakes and to pay more attention to idea development. Third, individualizing instruction through electronic dialogue journaling might have helped the teacher address specific needs, current knowledge and learning style of each student in the experimental group. Moreover, this individualized instruction might have helped the teacher diagnose the writing difficulties of each student and suggest remedies for overcoming these difficulties. Fourth, the interaction between the teacher and each student might have improved students' thinking skills which are necessary for writing because writing is putting thoughts on paper. Moreover, this interaction might have motivated students to broaden their linguistic competence to meet its requirements. Fifth, students' use of spelling and grammar checkers might have improved the accuracy of their writing and given them the opportunity to attend to ideas while writing. Finally, electronic journal writing might have developed the relationship between the teacher and the students which could in turn make writing an enjoyable activity. In support of this interpretation, Murphy-Lee (2000) found that electronic dialogue journals improved the rapport between the instructor and the students.

Conclusion

This study suggests that electronic dialogue journaling leads to superior improvement of writing performance compared to the traditional method. However, this conclusion is limited by the participants' level, the length of the study and the operationalization of the dependent and independent variables of the study.

Recommendations

In light of the results of the study, the researchers recommend that EFL writing should be taught through electronic journal interaction and that EFL teachers should emphasize the content rather than the form of writing and adapt instruction to meet individual needs in writing. Moreover, the Jordanian Ministry of Education is recommended to make internet facilities more accessible and reliable in all public schools.

Suggestions for Future Research

Building on the present study, future researchers are recommended to investigate the effect of electronic dialogue journaling on students' reading and speaking skills and their attitudes towards learning English as a foreign language.

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Appendix I

El-Koumy's Scale for Marking EFL Students' Writing

1. Content (3 marks)

- 3 marks for adequate information (From 15 to 13 lines)
- 2 marks for fairly adequate information (From 12 to 9 lines)
- 1 mark for little information (From 8 to 5 lines)
- 1/2 mark for very little information (From 4 to 1 lines)
- Zero for no/irrelevant information

2. Organization (1 mark)

- 1 mark for well-arranged and coherent sentences/paragraphs.
- 1/2 mark for well-ordered but not completely coherent sentences/paragraphs
- Zero for disorganized and incoherent sentences/paragraphs

3. Grammatical structures (2 marks)

- 2 marks for grammatical accuracy in the entire composition
- 1/4 (one-fourth) mark is deducted for each grammatical mistake
- Zero for many grammatical mistakes (8 or more)

4. Word choice (1 mark)

- 1 mark for fully-acceptable choice of lexical items (vocabulary and idioms) in the entire composition
- 1/8 (one-eighth) mark is deducted for each unacceptable choice of lexical items
- Zero for many mistakes in choosing the appropriate words (8 or more)

5. Mechanics (3 marks)

(a) Spelling (1 mark)

- 1 mark for a composition free from spelling mistakes (eliminating structural mistakes)
- 1/8 (one-eighth) mark is deducted for each mistake in spelling
- Zero for many mistakes in spelling (8 or more)

(b) Punctuation (1 mark)

- 1 mark for a composition free from mistakes in punctuation
- 1/8 (one-eighth) mark is deducted for each mistake in punctuation
- Zero for many mistakes in punctuation (8 or more)

(c) Capitalization (1 mark)

- 1 mark for a composition free from capitalization mistakes
- 1/8 (one-eighth) mark is deducted for each mistake in capitalization
- Zero for many mistakes in capitalization (8 or more)

Instructions for Using the Scale

1. If the content is irrelevant, no marks should be given to the other components.
2. Repeated errors in lexical items, spelling and capitalization should be ignored.
3. Criteria of marking grammatical structures, word choice and mechanics are based on the length of composition expected from students. If a student produces a shorter composition than the length required (13-15 lines), the criteria of marking these components should be changed as shown in the following table:

Criteria for Marking Grammatical Structures, Word Choice and Mechanics According to the Length of Composition

Length of composition	Criteria for marking grammatical structures	Criteria for marking word choice, spelling, punctuation and capitalization
From 9 to 12 lines	1/2 mark is deducted for each mistake. Zero is given for four mistakes or more.	1/4 mark is deducted for each mistake. Zero is given for four mistakes or more.
From 5 to 8 lines	1 mark is deducted for each mistake. Zero is given for two mistakes or more.	1/2 mark is deducted for each mistake. Zero is given for two mistakes or more.
From 1 to 4 lines	2 marks are deducted for one mistake. Zero is given for one mistake or more.	1 mark is deducted for one mistake. Zero is given for one mistake or more.

Appendix II

Topic List

1. Yourself
2. Tourism in Jordan
3. Unforgettable day
4. Your favorite hero
5. Five rules for adults to follow in their relation with teenagers.
6. Charity
7. Your culture and the British culture
8. A world in which everyone is the same